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| Breakout 1: Algebraic Thinking | | Grade |
| 90 minutes | Learning Goals   * I will understand the three key patterning concepts (additive, multiplicative, and algebraic thinking) * I will identify the mathematics necessary to respond to students in the moment. | Materials  Teacher journals  Chart paper  Markers  Masking Tape  Colour Tile  Pattern blocks |
|  | Whole Group 🡪  Group Norms – share the ones from CAMPPP.  Nottawasaga: Ice Breaker Activity: In your journal, write a three-digit number that represents you in some way (example: 475 – I am 47 and have 5 people in my family). Also, identify a personal learning goal or two for your week at math CAMPPP. Share at your table. As a table group, identify a three-digit number that represents your group as a whole. Also come up with a group goal. Represent your group goal and your group number on chart paper – be prepared to post and share. Each group shares, then each individual introduces themselves using their three-digit number, and explains how their number relates in some way to the group number. Use pipe cleaner to create your three-digit number to hang on your hat.  Kempenfelt: Revisit your three-digit number and goal. Comment on your progress so far. As a group, revisit your chart paper and use graffiti to represent your growth. Debrief as a large group.  All: What did you hear in the breakout session that resonated with you, or gave you a different perspective? Jot down a couple of notes in your journal. Popcorn-share some responses. (10 minutes) |  |
| Minds On… |
| 30 minutes |
|  | Partners 🡪 Algebraic problem solving  Participants complete the following problem in partners, on chart paper:  (we adapted the wording of the problem to make it appropriate to our context!)    Doing the Math: Facilitators will circulate, provide prompts as needed and responding “in the moment”. | afl *Assessment* ***for*** *learning* |
| Action! |
| 20 minutes |
|  | Whole Group 🡪 Responding  Facilitators lead a bansho bringing out additive thinking, multiplicative thinking, algebra, generalizations. Facilitators will annotate the Bansho. Provide the participants with the Bansho monograph to use for their own professional learning.  Participants are asked to work with a grade team partner, to reflect and discuss: What math do you see?  Where do you see this in our Ontario curriculum (process expectations as well).  If time allows, how did the facilitation get at “responding to students in the moment”? |  |
| Consolidate Debrief |
| 35 minutes |
| 5 minutes | Further Classroom Consolidation  Provide breakout memento (hook) with the following prompt:  Reflect on your experiences today. What hooked you? What do you still need to know about the three algebraic representations? Write your reflection on a fish, and post it under the following quote.  *It matters not how many fish are in the sea if you don't have any bait on your hook.  -Anonymous*  At any point in the week, you can post your reflection or new a-ha moments. |  |